

REMARKS

By this amendment, claims 1-4 have been amended, and claims 5-10 have been added. Thus, claims 1-10 are now active in the application. Reexamination and reconsideration of the application is respectfully requested.

The specification and abstract have been carefully reviewed and revised to correct grammatical and idiomatic errors in order to aid the Examiner in further consideration of the application. The amendments to the specification and abstract are incorporated in the attached substitute specification and abstract. No new matter has been added.

Attached hereto is a marked-up version of the changes made to the specification and Abstract by the current amendment. The attachment is captioned "**Version with markings to show changes made.**"

On pages 2 and 3 of the Office Action, claims 1-4 were rejected under 35 U.S.C. 102(b) as being anticipated by Suzuki et al. (U.S. Patent 6,233,986). This rejection is respectfully traversed, and is believed clearly inapplicable to the claims as presently presented, for the following reasons.

Initially, it is noted that claims 1-4 have been amended so as to improve the English grammar and U.S. form of the claims and also so that the claim language will not be unduly narrowly construed under 35 U.S.C. 112, sixth paragraph. In addition, in claim 1, "an engagement portion" has been changed to --a receiving portion-- so that the claim language corresponds to the language presented in the specification at, for example, page 9, line 5.

Thus, with exemplary reference to the drawing figures, claim 1 sets forth an electrically-operated steering lock device having a lock shaft 1 which is movable between a protruded position (see Figs. 1 and 6A) where a steering shaft is locked and a retracted position (see Figs. 7A and 8A) where the steering shaft is unlocked, and a lock shaft moving device (e.g. 3, 13) coupled to an electric motor 2 and serving to move the lock shaft 1, the electrically-operated steering lock device further comprising: a protrusion blocking device (e.g. 4) which is electrically driven and which, when the lock shaft 1 is placed in a retracted position (Figs. 1 and 6A),

engages with a receiving portion (e.g. 15) formed in the lock shaft 1 to block protrusion of the lock shaft 1; and a holding part (e.g. 15a) for holding the protrusion blocking device 4 in a position where protrusion of the lock shaft 1 is blocked.

With this arrangement of the present invention as recited in claim 1, and as described in the present specification, even if the electrically-operated steering lock device and the electrically driven protrusion blocking device are simultaneously driven due to, for example, electrical noise or interference or the like during running of the vehicle, the protrusion blocking device will not be moved to its non-blocking position to allow the lock to protrude and thus undesirably block the steering shaft. In particular, and with exemplary reference to the preferred embodiment of the present invention, the undesirable retraction of the plunger 42 to disengage the flange portion 42a thereof from the receiving recess 15 of the lock shaft 1 will be prevented by the presence of the engagement portion 15a (i.e. the holding part) (see Figs. 3A and 8B, for example).

Thus, claim 1 specifically requires that the protrusion blocking device be "electrically driven". In contrast, the illustrated embodiment of the Suzuki patent (U.S. 6,233,986), in which the holding lever 45 (referred to by the Examiner as the "protrusion blocking means") is extended and retracted by movements of the inner wire 47 in the direction of arrow D (Fig. 1) which is caused upon rotation of the operating knob 3 (see Fig. 3). Thus, the protrusion blocking device (45) of the illustrated embodiment of Suzuki is not "electrically driven" as required by claim 1.

Therefore, claim 1 is clearly not anticipated by the illustrated embodiment of Suzuki. However, as pointed out by the Examiner in the paragraph spanning pages 2 and 3 of the Office Action, lines 9-12 of column 11 of Suzuki disclose an alternative embodiment in which the "holding lever 45 moved through the inner wire 47 maybe replaced by an electric drive means such as an electromagnetic solenoid."

In this alternative embodiment, however, the solenoid would replace the lever 45 as the protrusion blocking device, but there would be no holding part (as required by claim 1) to provide the explicitly-recited feature of "holding the protrusion blocking device in a position where protrusion of said lock shaft is blocked."

As such, since the lock shaft 14 is moved by an electric motor 18 in Suzuki and the protrusion blocking device for blocking movement of the lock shaft 14 to the protruded position is an electromagnetic solenoid (in the alternative embodiment of Suzuki), a malfunction or undesirable occurrence such as a stray electrical noise or electrical signal could potentially cause both the electric motor 18 and the solenoid of Suzuki to operate, thereby pulling the solenoid out of the position in which it blocks the protrusion of the lock shaft 14 and operating the electric motor 18 to cause protruding of the lock shaft 14. This could cause undesirable locking of the steering shaft and a potentially dangerous situation.

Therefore, the alternative embodiment of Suzuki (as described at column 11, lines 9-12 of Suzuki) also fails to disclose or suggest the present invention as recited in claim 1.

Next, new independent claim 6 sets forth an electrically-operated steering lock device for use in locking rotation of a steering shaft, the steering lock device comprising: a lock shaft 1 arranged to be movable between a protruded position (Figs. 1 and 6A) in which the steering shaft is locked, and a retracted position (Figs. 7A and 8A) in which the steering shaft is unlocked, the lock shaft 1 having a blocking device receiving portion 15 formed therein; a lock shaft movement transmission 3, 13 arranged to be coupled to an electric motor 2 and serving to move the lock shaft 1 between the protruded and retracted positions upon operation of the electric motor 2; an electrically operated protrusion blocking device 4 that is engageable with (e.g. see Fig. 8B) and disengageable from (e.g. see Fig. 7B) the blocking device receiving portion 15, and that is operable, when the lock shaft 1 is placed in the retracted position (e.g. Figs. 7A and 8A), to engage with the blocking device receiving portion 15 so as to block protrusion of the lock shaft 1 to the protruded position (Figs. 1 and 6A); and a holding part (15a) arranged to hold the protrusion blocking device 4 in engagement with the blocking device receiving portion 15 so as to prevent unintended disengagement of the protrusion blocking device 4 from the blocking device receiving portion 15, and to thereby prevent unintended protrusion of the lock shaft 1 from the retracted position (Figs. 7A and 8A) to the protruded position (Figs. 1 and 6A).

Thus, as with claim 1 as discussed above, claim 6 requires the protrusion blocking device 4 to be "electrically operated". Accordingly, as discussed above in support of claim 1, the illustrated embodiment of Suzuki patent clearly fails to anticipate the invention of claim 6 since the protrusion blocking device 45 of the illustrated embodiment of Suzuki is not "electrically operated."

Furthermore, for the reasons discussed above in support of claim 1, the alternative embodiment described at column 11, lines 9-12 of the Suzuki patent does not disclose or suggest the present invention of present claim 6. In particular, replacement of "the holding lever 45 moved through the inner wire 47" of Suzuki with the "electric drive means such as an electromagnetic solenoid" would result in there being an electromagnetic solenoid as the recited "electrically operated protrusion blocking device", but such alternative embodiment would not then include the recited "holding part arranged to hold said protrusion blocking device in engagement with said blocking device receiving portion so as to prevent unintended disengagement of said protrusion blocking device from said blocking device receiving portions, and to thereby prevent unintended protrusion of said lock shaft from said retracted position to said protruded position." Rather, with the use of an electromagnetic solenoid in Suzuki in place of the holding lever 45 moved through the inner wire 47, the Suzuki arrangement would be subject to the same potential problem that the present invention obviates by the provision of the holding part (e.g. 15a).

Accordingly, for the above reasons, it is believed clear that the present invention as recited in independent claims 1 and 6 is not anticipated by the Suzuki patent. Furthermore, these differences are such that a person having ordinary skill in the art would not have been motivated to modify the Suzuki patent or to make any combination of the references of record in such a manner as to result in or otherwise render obvious the present invention as recited in either of claims 1 and 6. Therefore, it is respectfully submitted that claims 1 and 6, as well as the claims which depend therefrom, are clearly allowable over the prior art of record.


The Examiner's attention is also directed to the dependent claims which set forth additional features of the present invention and further define the invention over the prior art.

In view of the foregoing amendments and remarks, it is respectfully submitted that the present application is clearly in condition for allowance. An early notice thereof is earnestly solicited.

If, after reviewing this Amendment, the Examiner feels there are any issues remaining which must be resolved before the application can be passed to issue, it is respectfully requested that the Examiner contact the undersigned by telephone in order to resolve such issues.

Respectfully submitted,

Keisuke FUKUSHIMA

By: 

Charles R. Watts

Registration No. 33,142

Attorney for Applicants

CRW/asd
Washington, D.C. 20006-1021
Telephone (202) 721-8200
Facsimile (202) 721-8250
September 7, 2004